Lake Erie Harmful Algal Bloom Bulletin

01 October, 2018, Bulletin 30

Analysis

The *Microcystis* cyanobacteria bloom in the western basin of Lake Erie continues to decrease in concentration and extent. Observed winds over the weekend (9/29-30) caused slight mixing that may have reduced remaining surface concentrations. The *Microcystis* bloom is below detectable limits in satellite imagery throughout most of the western basin, although very low concentrations can be seen in Maumee Bay. No scum has been reported in the western basin. Measured toxin concentrations remain below the recreational threshold at all locations. *Keep pets and yourself out of the water in areas where scum is forming*. The persistent cyanobacteria bloom in Sandusky Bay continues.

Forecasts

Forecast winds (6-17 kn) today through Thursday (10/1-4) will likely cause mixing and eastward transport of remaining *Microcystis* concentrations. The water temperature in the western basin has dropped to 68˚F (20˚C) and below, which should substantially decrease bloom concentrations through this week. -Ludema, Davis

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: *http://publicapps.odh.ohio.gov/beachguardpublic/*
Ohio EPA's site on harmful algal blooms: *http://epa.ohio.gov/HAB-Algae*
NOAA's GLERL provides additional HAB data here: *http://www.glerl.noaa.gov/res/HABs_and_Hypoxia*

The images below are "GeoPDF". Please visit https://go.usa.gov/xReTC for instructions on viewing longitude and latitude.

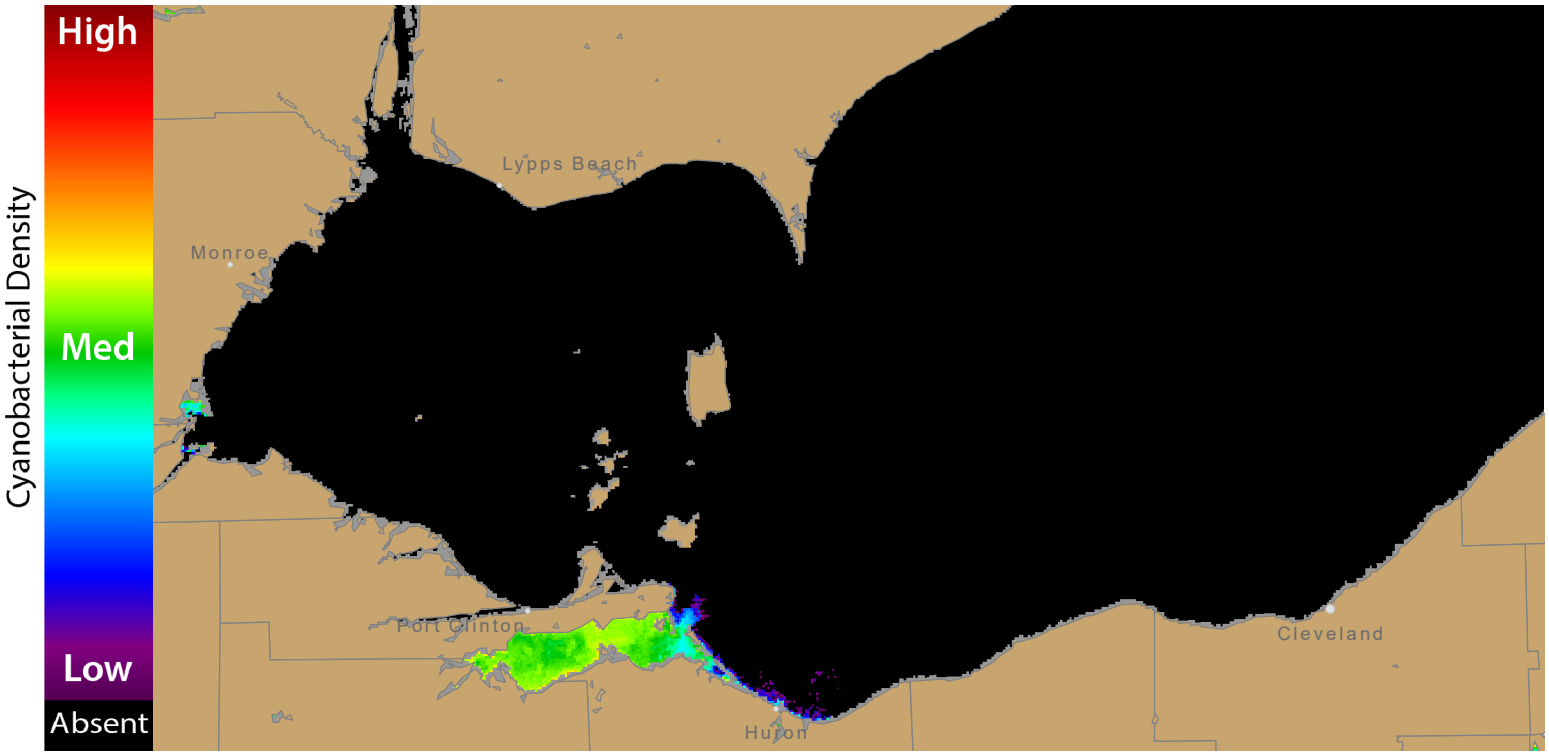


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 28 September, 2018 at 11:38 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

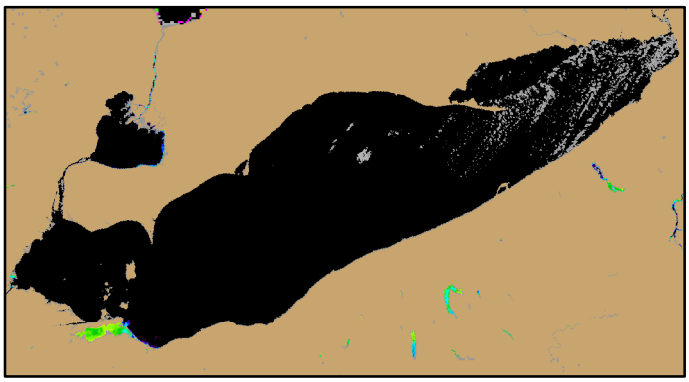
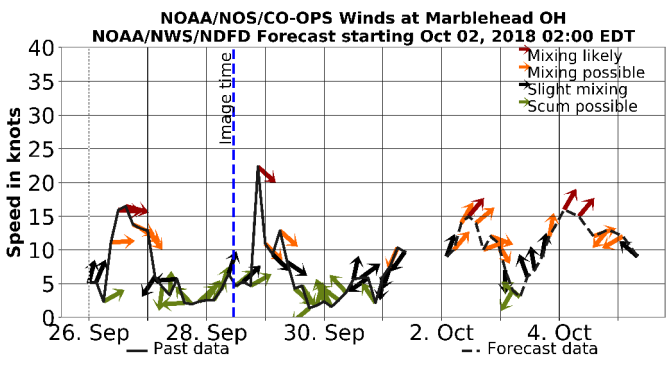


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 28 September, 2018 at 11:38.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html

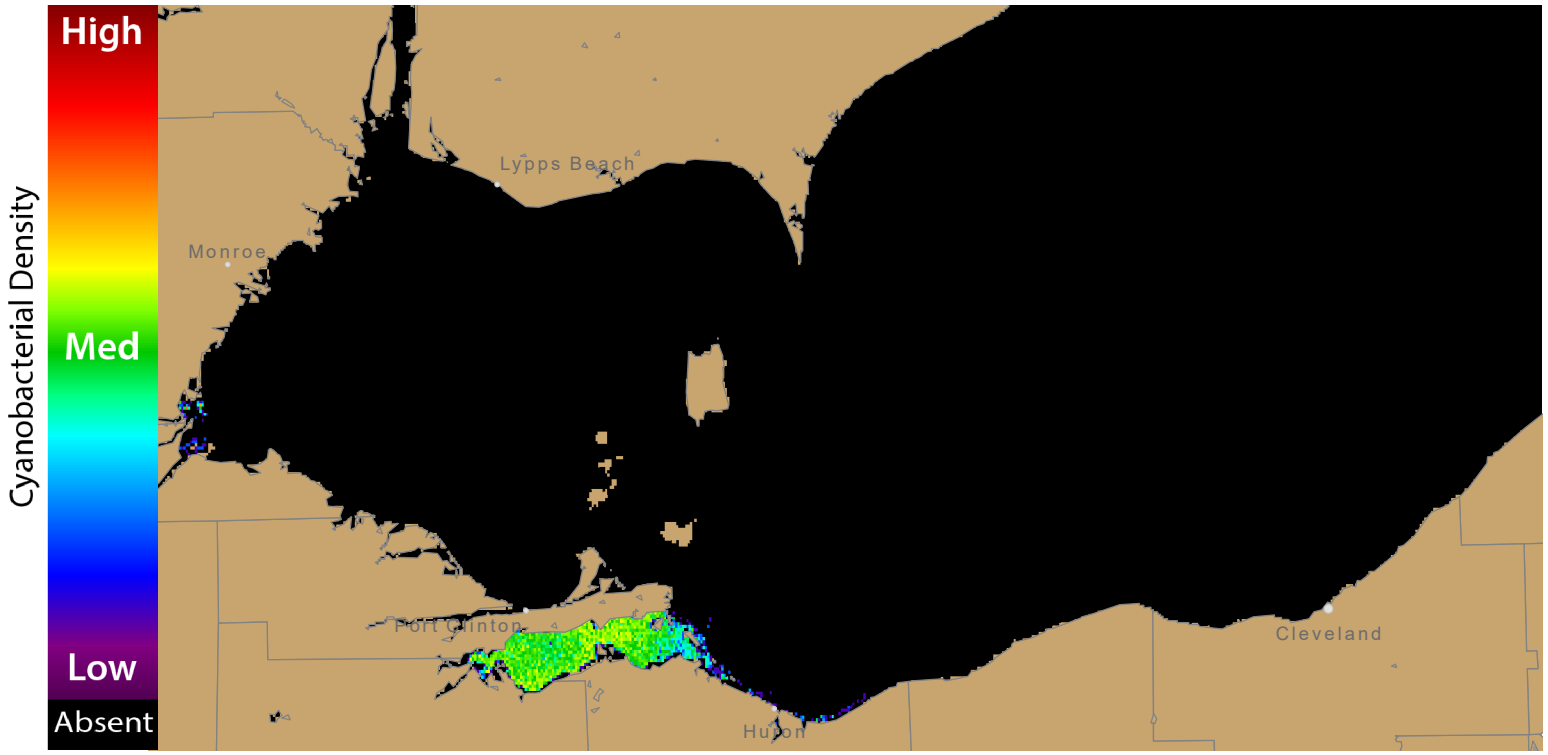


Figure 3. Nowcast position of bloom for 01 October, 2018 using LEOFS modelled currents to move the bloom from the 28 September, 2018

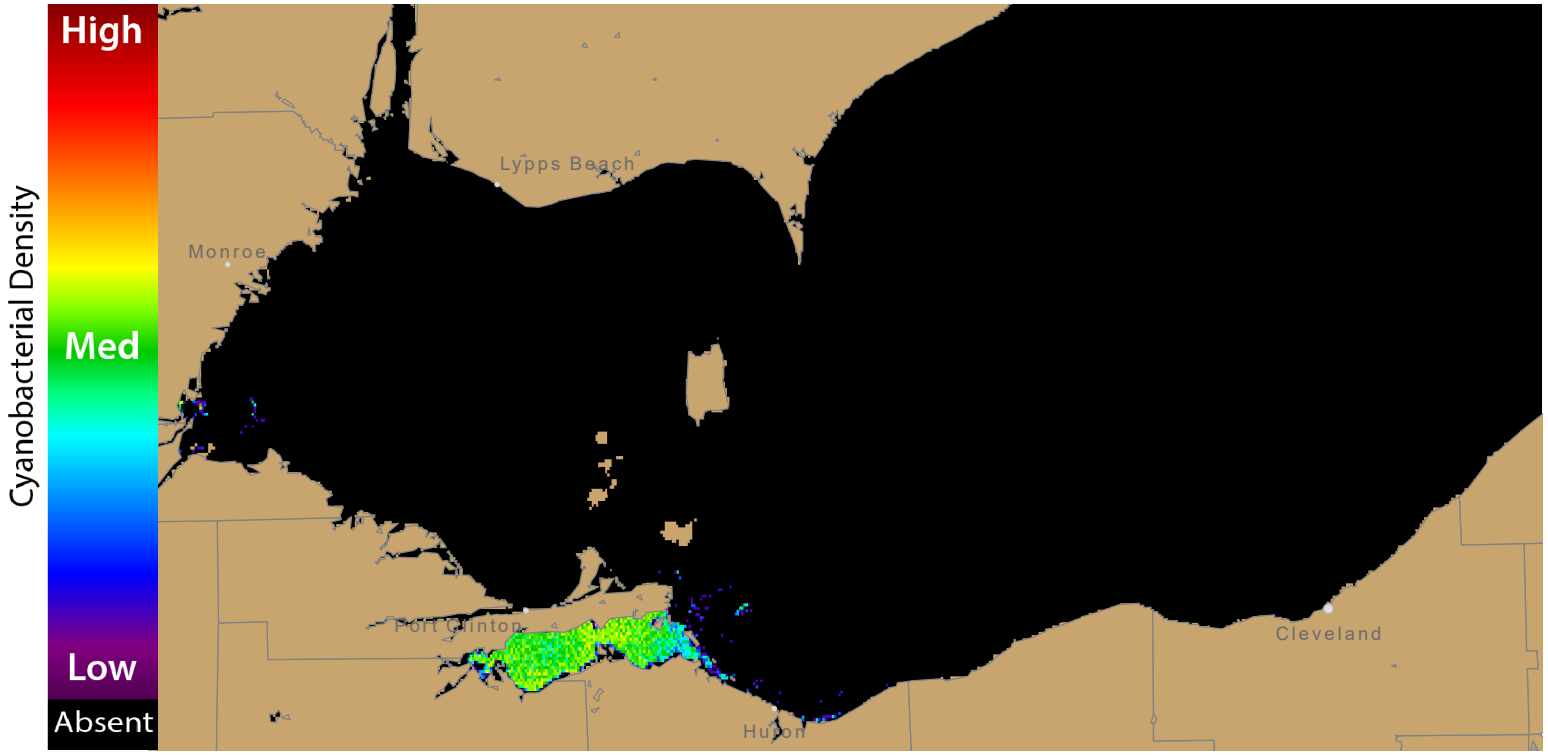
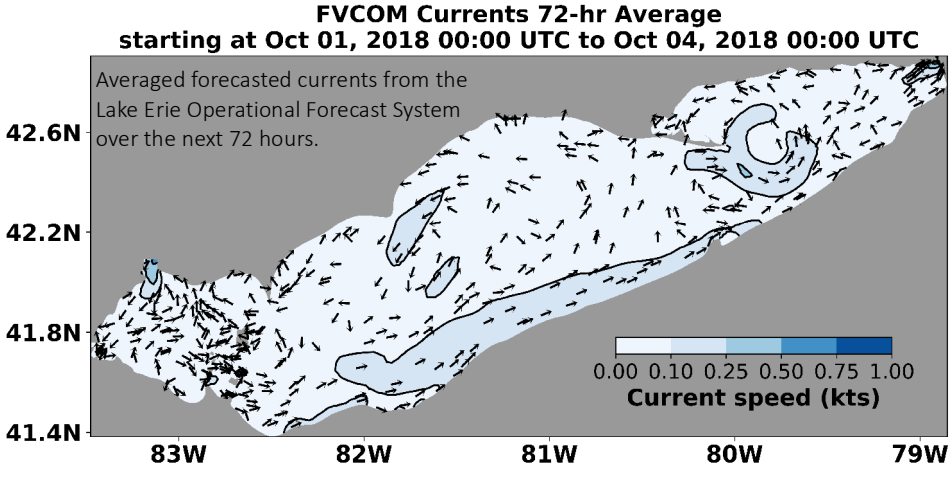


Figure 4. Forecast position of bloom for 04 October, 2018 using LEOFS modelled currents to move the bloom from the 28 September, 2018



For more information and to subscribe, please visit the NOAA HAB Forecast page: https://tidesandcurrents.noaa.gov/hab/lakeerie.html